

**LISTING OF CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Original) A method of processing a database service query, comprising:  
receiving a service query,  
applying principles of logic to the service query to obtain a sum of terms,  
evaluating each term as a separate SQL instruction, and  
executing each separate SQL instruction.

Claim 2 (Original) The method as claimed in claim 1, further comprising expanding each term to remove NOT operators.

Claim 3 (Original) The method as claimed in claim 2, wherein the sum of terms are expanded using Boolean logic.

Claim 4 (Original) The method as claimed in claim 1, in which the service query is an X.500 or LDAP service query.

Claim 5 (Original) The method as claimed in claim 1, in which the service query is a search service query.

Claim 6 (Original) A method of processing a database service query, comprising:

determining a SQL instruction representative of a function;  
listing the results of a subtracted SQL instruction in a first list, listing the results of a non-subtracted SQL instruction in a second list; and  
not listing results which are duplicates of previously listed subtracted or non-subtracted results.

Claim 7 (Original) The method as claimed in claim 6, in which the service query is an X.500 or LDAP query.

Claim 8 (Original) The method as claimed in claim 6, in which the service query is a search service query.

Claim 9 (Original) A directory service arrangement including:  
a database using a plurality of tables, each table having a plurality of rows and columns, and storing arbitrary data; and  
means for processing a service query by applying principles of logic to the service query to obtain a sum of terms, evaluating each term as a separate SQL instruction, and executing each separate SQL instruction.

Claim 10 (Original) The directory service arrangement as claimed in claim 9, further including means to perform X.500 or LDAP services.

Claim 11 (Original) A directory service arrangement including:

a database using a plurality of tables, each table having a plurality of rows and columns, and storing arbitrary data, and

means for processing a service query by determining a SQL instruction representative of a function, listing the results of a subtracted SQL instruction in a first list, listing the results of a non-subtracted SQL instruction in a second list, and not listing results which are duplicates of previously listed subtracted or non-subtracted results.

Claim 12 (Original) The directory service arrangement as claimed in claim 11, further including means to perform X.500 or LDAP services.

Claim 13 (Original) A method for processing a database service query, comprising:  
translating a service query to an expression;  
simplifying the expression to a number of smaller expressions, each smaller expression being capable of being flattened;  
flattening each smaller expression; and  
executing each flattened expression.

Claim 14 (New) A method of processing a directory service query, comprising:  
receiving a service query,  
applying principles of logic to the directory service query to obtain a sum of terms,  
mapping the sum of terms to SQL,  
evaluating each mapped term as a separate SQL instruction, and  
executing each separate SQL instruction.

Claim 15 (New) The method as claimed in claim 14, further comprising expanding each term to remove NOT operators.

Claim 16 (New) The method as claimed in claim 15, wherein the sum of terms are expanded using Boolean logic.

Claim 17 (New) The method as claimed in claim 14, in which the service query is an X.500 or LDAP service query.

Claim 18 (New) The method as claimed in claim 14, in which the service query is a search service query.

Claim 19 (New) A method of processing a directory service query, comprising:  
determining a SQL instruction representative of the directory service query;  
listing the results of a subtracted SQL instruction in a first list, listing the results of a non-subtracted SQL instruction in a second list; and  
not listing results which are duplicates of previously listed subtracted or non-subtracted results.

Claim 20 (New) The method as claimed in claim 19, in which the service query is an X.500 or LDAP query.

Claim 21 (New) The method as claimed in claim 19, in which the service query is a search service query.

Claim 22 (New) A directory service arrangement including:  
a database using a plurality of tables, each table having a plurality of rows and columns, and storing arbitrary data; and  
means for processing a directory service query by applying principles of logic to the directory service query to obtain a sum of terms, mapping the sum of terms to SQL, evaluating each mapped term as a separate SQL instruction, and executing each separate SQL instruction.

Claim 23 (New) The directory service arrangement as claimed in claim 22, further including means to perform X.500 or LDAP services.

Claim 24 (New) A directory service arrangement including:  
a database using a plurality of tables, each table having a plurality of rows and columns, and storing arbitrary data, and  
means for processing a directory service query by determining a SQL instruction representative of the directory service query, listing the results of a subtracted SQL instruction in a first list, listing the results of a non-subtracted SQL instruction in a second list, and not listing results which are duplicates of previously listed subtracted or non-subtracted results.

Claim 25 (New) The directory service arrangement as claimed in claim 24, further

including means to perform X.500 or LDAP services.

Claim 26 (New) A method for processing a directory service query, comprising:  
translating a directory service query to an expression;  
simplifying the expression to a number of smaller expressions, each smaller  
expression being capable of being flattened;  
flattening each smaller expression; and  
executing each flattened expression.